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Global diversification and IPO returns ☆

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ABSTRACT

A large number of newly listed firms have significant involvement in international business activity. In this paper, we examine the effect of international business activity on the pricing of initial public offerings (IPOs), post-IPO performance, and survival. In a large sample of U.S. IPOs over 1981–2012, we find that firms with exports and/or foreign sales prior to going public have significantly lower underpricing than firms without international business activity. Furthermore, firms with international business activity significantly outperform purely domestic IPO firms over 3- and 5-year periods after going public and have a significantly higher survival rate. Overall, we provide strong evidence that global diversification has an economically significant effect on the valuation and subsequent performance of firms going public.

1. Introduction

With the increasing importance of market globalization, firms have become more involved in international trade and foreign direct investment. By operating in foreign markets, firms may expand their revenue base and diversify the risk of domestic cash flow shocks. Global diversification may also enhance firm value by helping to "complete the market" in the face of international capital market segmentation and/or frictions.[3] In contrast with this possible value-enhancing perspective, foreign operations entail complexities from monitoring and communication, as well as the risks of country default, exchange rate fluctuations, and unstable political regimes. The literature generally finds mixed support for the influence of international activity on firm performance. A number of studies document that firms engaged in export activity have better operating performance than do peer-firms that sell domestically only (see, e.g., De Loecker (2007), Greenaway et al. (2007), and Park et al. (2010)). Furthermore, Gande et al. (2009) find that global diversification – as measured by foreign sales – increases firm value and Reeb et al. (2001) find that global diversification promotes credit ratings and decreases the cost of debt. Other studies, however, argue that international business activity (i.e., exports and/or foreign sales) decreases firm value. For example, Denis et al. (2002) document that global diversification carries an average valuation discount of 18%.[4]

To the best of our knowledge, the literature on the costs and benefits of global diversification has focused exclusively on large publicly-traded multinational corporations. Although this is clearly an obvious and relevant group of companies to study, a large

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[3] For example, see Errunza and Senbet (1981, 1984), Errunza and Losq (1985, 1989), Merton (1987), and Mauer and Senbet (1992).

[4] From a contingent claims perspective, Doukas and Kan (2006) argue that risk-reducing global diversification should increase bondholder value and decrease shareholder value. The upshot is that global diversification may not decrease overall firm value. Consistent with their argument, they find that the global diversification discount is increasing with leverage and that globally diversified all-equity firms trade at a premium.

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number of small private (i.e., not yet publicly traded) companies are actively involved in international business activity. In our sample of 4994 IPOs from 1981 to 2012, we find that more than a quarter of the firms going public have exports and/or foreign sales in the year of and the year before the initial public offering. For this group of firms, the average amount of exports and/or foreign sales to total firm sales is 30% in the year prior to the IPO year. In this paper, we contribute to the debate on the costs and benefits of global diversification by focusing on the international business activity of private firms in the years immediately surrounding their initial public offering. We examine the effect of international business activity on the valuation, long-run performance, and survival of newly public firms.

A large body of literature documents that IPOs are underpriced as evidenced by an initial offer price below the closing price at the end of the first day of trading.[5] The literature argues that uncertainty about the firm's business, operations, strategy, and ultimately future earnings is an important determinant of underpricing because shares must be offered at a discount to compensate investors for uncertainty. A key question for this study is whether international business activity influences underpricing. On the one hand, if involvement in international markets provides a profit cushion to firms and/or diversifies domestic earnings, investors should have lower uncertainty about earnings prospects. Thus, the lower uncertainty associated with a globally diversified earnings stream could encourage firms and their investment bankers to offer the shares in the IPO at a higher offer price relative to the expected secondary market trading price and therefore IPO underpricing would be lower. On the other hand, if exports and/or foreign production bring additional risks that offset the benefits of global diversification, then we might expect globally diversified firms to face larger underpricing than domestically focused firms. We can therefore assess the relative benefits and costs of global diversification by studying whether international business activity around the time of the IPO influences IPO underpricing.

In addition to being underpriced on average, it is well documented that IPO firms underperform the market and matching firms after going public (see, e.g., Ritter (1991) and Loughran and Ritter (1995)).[6] Consistent with this long-run underperformance, a number of studies also document a low survival rate of newly listed firms (see, e.g., Jain and Kini (2000, 2008) and Fama and French (2004)). If global diversification has persistent benefits to firms going public, then we might expect less post-issue underperformance and a higher survival rate of newly listed firms with international business activity. Of course, if international business activity brings additional shocks to earnings that cannot be mitigated through diversification and/or hedging, then we would expect worse underperformance and survival of IPO firms with exports and/or foreign sales.

In this paper, we investigate the impact of global diversification on the underpricing and post-issue performance of firms going public. As noted above, 1384 or 27.7% of our sample IPO firms have exports and/or foreign sales in the year of the IPO and the year before. Relative to domestically focused IPO firms, globally diversified IPO firms tend to have higher productivity, higher investment (capital expenditures and R&D), and greater age at the time they go public. Interestingly, however, they are not always larger. While the average and median IPO firms with foreign operations tend to be roughly double the size of their purely domestic counterparts – as measured by market capitalization, assets, or sales – the average and median exporting IPO firms are significantly smaller.

Controlling for IPO and firm characteristics known to influence underpricing as well as time and industry fixed effects, we find that global diversification significantly decreases underpricing. Depending on whether the IPO firm is an exporter and/or has foreign sales, estimates from multivariate regressions show that underpricing is 2–6% lower for globally diversified IPOs in comparison to domestically-focused IPOs. Furthermore, IPO underpricing is significantly decreasing in the intensity of international business. For example, a one standard deviation increase in the ratio of exports and/or foreign sales to total firm sales decreases underpricing by approximately one percent. These results are robust when we account for the potential influences of endogeneity and selection bias on the relation between underpricing and international business activity. Overall, our analysis strongly supports the notion that global diversification reduces IPO uncertainty and thereby decreases underpricing.

We next compute calendar time abnormal returns and buy-and-hold returns to examine the long-run performance of globally diversified newly-public firms. We find that IPO firms with exports and/or foreign sales significantly outperform IPOs without international business activity over 3 and 5 year periods after the IPO. These results are robust when we use a purged eight-factor model to explain post-IPO returns,[7] when we group IPOs into size-based portfolios, when we group IPOs by post-issue acquisition activity, and when we control for selection bias using propensity score matching.

Lastly, we investigate whether global diversification affects the survival of IPO firms. Specifically, we test whether newly-public firms with international business activity have a lower probability of failure (i.e., being delisted because of bankruptcy or liquidation). Using a hazard model to estimate the influence of IPO and firm characteristics on survival, we find that globally diversified IPO firms have a lower hazard rate (i.e., higher survival rate) than domestic IPO firms. Overall, the evidence from the long-run performance and survival analysis strongly suggests that global diversification mitigates long-run underperformance and enhances long-run survival.

This paper makes four contributions to the literature. First, quite a few firms are actively involved in international business prior to going public. However, global diversification has not been explored as a factor contributing to IPO pricing and subsequent performance. Our paper is the first to document that global diversification is an economically significant determinant of IPO initial returns, long-run performance, and survival of newly public firms. Second, by studying IPO initial and long-run returns, we bring a valuation dimension to the impact of international business activity on firm performance. By comparison, the international economics literature assesses the impact of international business activity on firm performance with non-stock-market based measures of performance (e.g., productivity, capital intensity, and liquidity ratios).[8] Third, to the best our knowledge, empirical studies of global diversification focus on large, publicly-traded firms. None have focused on small firms despite their non-trivial involvement in international markets. Since firm size tends to be small at the IPO stage, our study contributes to the literature on global

[5] See Ritter and Welch (2002), Ljungqvist (2007), and Ritter (2011) for reviews of this literature.

[6] Recent studies argue that long-run underperformance exits only among certain types of IPOs. For example, Brau et al. (2012) find only newly listed firms that acquire within a year after their IPO underperform and Ritter (2011) finds that IPO long-run underperformance is present only in small firms.

[7] The eight factors include the three Fama–French (1993) factors, the Carhart (1997) momentum factor, the Cooper et al. (2008) asset growth factor, the Harvey and Siddique (2000) co-skewness factor, the Lyandres et al. (2008) investment factor, and the Pastor and Stambaugh (2003) liquidity factor. Following Loughran and Ritter (2000), we construct the factors after purging firms that have publicly issued equity in an IPO or SEO during the prior 5 years.

[8] A recent exception is Breinlich (2014), who assesses the effect of trade liberalization on firms by examining stock market reactions to the loosening of trade restrictions.